

## CONTENTS

Authentic standards for the reductive-cleavage method. The positional isomers of partially methylated and acetylated or benzoylated 1,5-anhydro-D-galactitol L.E. Elvebak II, C. Abbott, S. Wall and G.R. Gray (Minneapolis, MN, USA) . . . . .	1
Discrimination of the two diastereoisomeric glycosides heterodendrin and epi-heterodendrin by the combined use of NOE and molecular mechanics P.P. Lankhorst, J.W.H. Smeets (Delft, Netherlands) and C.A.G. Haasnoot (Oss, Netherlands) . . . . .	17
Crystal and molecular structure of <i>N</i> -( <i>n</i> -octyl)-6-deoxy-D-gluconamide: a novel packing of amphiphilic molecules R. Herbst, T. Steiner (Berlin, Germany), B. Pfannemüller (Freiburg i. Br., Germany) and W. Saenger (Berlin, Germany) . . . . .	29
Crystal structures of methyl 6- <i>O</i> - <i>n</i> -alkanoyl- $\beta$ -D-glucopyranosides Y. Abe, K. Harata (Ibaraki, Japan), M. Fujiwara and K. Ohbu (Tokyo, Japan) . . . . .	43
Synthesis of carbocyclic analogues of 3-deoxy-D-manno-2-octulosonic acid and <i>N</i> -acetylneuraminic acid S. Ogawa, M. Yoshikawa, T. Taki, S. Yokoi and N. Chida (Yokohama, Japan) . . . . .	53
A new synthesis of 6- <i>O</i> -acylsucroses and of mixed 6,6'-di- <i>O</i> -acylsucroses K. Bacsko, C. Nugier-Chauvin (Rennes, France), J. Banoub (Newfoundland, Canada), P. Thibault (Nova Scotia, Canada) and D. Plusquellec (Rennes, France) . . . . .	79
Highly selective nitroxyl radical-mediated oxidation of primary alcohol groups in water-soluble glucans A.E.J. De Nooy, A.C. Besemer (Zeist, Netherlands) and H. Van Bekkum (Delft, Netherlands) . . . . .	89
Bromination of sugar enones and enonolactones C. Di Nardo, O. Varela, R.M. De Lederkremer, R.F. Baggio, D.R. Vega (Buenos Aires, Argentina) and M.T. Garland (Santiago de Chile, Chile) . . . . .	99
TLC–LSIMS of neoglycolipids of glycosaminoglycan disaccharides and of oxymercuration cleavage products of heparin fragments that contain unsaturated uronic acid W. Chai, J.R. Rosankiewicz and A.M. Lawson (Harrow, United Kingdom) . . . . .	111
Structural studies of the O-specific chain and a core hexasaccharide of <i>Hafnia alvei</i> strain 1192 lipopolysaccharide W. Jachymek (Wrocław, Poland), C. Petersson (Uppsala, Sweden), A. Helander (Stockholm, Sweden), L. Kenne (Uppsala, Sweden), C. Lugowski and T. Niedziela (Wrocław, Poland) . . .	125

Characterisation by LSI-MS and $^1\text{H}$ NMR spectroscopy of tetra-, hexa-, and octa-saccharides of porcine intestinal heparin W. Chai (Harrow, United Kingdom), E.F. Hounsell, C.J. Bauer (London, United Kingdom) and A.M. Lawson (Harrow, United Kingdom) . . . . .	139
The structure of the O-specific polysaccharide from <i>Thiobacillus</i> sp. IFO 14570, with three different diaminopyranoses forming the repeating unit A.S. Shashkov (Moscow, Russian Federation), S. Campos-Portuguez, H. Kochanowski (Freiburg i.Br.-Zähringen, Germany), A. Yokota (Osaka, Japan) and H. Mayer (Freiburg i.Br.-Zähringen, Germany). . . . .	157
Analysis of positions of substitution of O-acetyl groups in partially O-acetylated cellulose by the reductive-cleavage method C.K. Lee and G.R. Gray (Minneapolis, MN, USA) . . . . .	167
<i>Notes</i>	
Full assignment of the NMR spectrum of the capsular polysaccharide from <i>Streptococcus pneumoniae</i> serotype 10A C. Jones (South Mimms, Herts, United Kingdom). . . . .	175
The structural analysis of disaccharides from red algal galactans by methylation and reductive partial-hydrolysis R. Falshaw and R.H. Furneaux (Lower Hutt, New Zealand). . . . .	183
<i>Preliminary communication</i>	
Structural investigation on the carbohydrate backbone of the lipopolysaccharide from <i>Klebsiella pneumoniae</i> rough mutant R20/O1 <sup>-</sup> M. Süßkind (Borstel, Germany), S. Müller-Loennies (Valby, Denmark), W. Nimnich (Rostock, Germany), H. Brade and O. Holst (Borstel, Germany) . . . . .	C1
<i>Regular papers</i>	
Synthesis of 3,4-di-O-acetyl-2,5-anhydro-1,6-dideoxy-1,6-diiodo-D-mannitol. Comparison of NMR spectral results for the solid state and solution with those of the X-ray structural determination M.A. Shalaby, F.R. Fronczek, Y. Lee and E.S. Younathan (Baton Rouge, LA, USA) . . . . .	191
Cyclomaltoheptaose ( $\beta$ -cyclodextrin) and hydroxyethyl-substituted $\beta$ -cyclodextrin inclusion complex formation with chlorogenic acid: solvent effects on inclusion complex stability P.L. Irwin, J.N. Brouillette and K.B. Hicks (Philadelphia, PA, USA) . . . . .	201
Solid-phase synthesis of a glycosylated hexapeptide of human sialophorin, using the trichloroacetimidate method J. Rademann and R.R. Schmidt (Konstanz, Germany) . . . . .	217
Stereoselective synthesis of a blood group A type glycopeptide present in human blood mucin W.M. Macindoe (Tokyo, Japan), H. Ijima, Y. Nakahara (Saitama, Japan) and T. Ogawa (Saitama, Tokyo, Japan) . . . . .	227
Synthesis of N- $\beta$ -D-glucopyranosyluronate derivatives of barbital, phenobarbital, metharbital, and mephobarbital S.M. Neighbors, W.H. Soine and S.G. Paibir (Richmond, VA, USA) . . . . .	259
Enzymic transfer of 6-modified D-galactosyl residues: synthesis of biantennary penta- and hepta-saccharides having two 6-deoxy-D-galactose residues at the nonreducing end and evaluation of 6-deoxy-D-galactosyl transfer to glycoprotein using bovine $\beta$ -(1 $\rightarrow$ 4)-galactosyltransferase and UDP-6-deoxy-D-galactose Y. Kajihara, T. Endo (Nagatsuta, Japan), H. Ogasawara, H. Kodama (Umegaoka, Japan) and H. Hashimoto (Nagatsuta, Japan) . . . . .	273

The structure of the capsular polysaccharide of <i>Escherichia coli</i> O8:K43:H11 Y.M. Choy (Shatin, Hong Kong), G.G.S. Dutton (Vancouver, Canada), M.R. Leslie, H. Parolis and L.A.S. Parolis (Grahamstown, South Africa) . . . . .	295
The structure of a novel polysaccharide produced by <i>Bradyrhizobium</i> species within soybean nodules J. An, R.W. Carlson, J. Glushka (Athens, GA, USA) and J.G. Streeter (Wooster, OH, USA) . . . . .	303
NMR Studies of acetan and the related bacterial polysaccharide, CR1/4, produced by a mutant strain of <i>Acetobacter xylinum</i> I.J. Colquhoun, M. Defernez and V.J. Morris (Colney, United Kingdom) . . . . .	319
<i>Notes</i>	
Separation and quantitation of enantiomeric galactoses and their mono- <i>O</i> -methylethers as their diastereomeric acetylated 1-deoxy-1-(2-hydroxypropylamino)alditols M.R. Cases, A.S. Cerezo and C.A. Stortz (Buenos Aires, Argentina) . . . . .	333
An alternative synthesis of (+)- <i>epiallo</i> -muscarine from D-glucose V. Popsavin, O. Berić, M. Popsavin, J. Csanádi and D. Miljković (Novi Sad, Yugoslavia) . . . . .	343
Isopropylidenation of aldose bis(phenylhydrazones) E.S.H. El Ashry, N. Rashed, A. Mousaad and M. El Habrouk (Alexandria, Egypt) . . . . .	349
The preparation of sucrose monophosphates from dried mixtures of sucrose and sodium phosphate E. Tarelli and S.F. Wheeler (Potters Bar, United Kingdom) . . . . .	359
Isolation, purification, and characterization of cyclomaltododecaose ( $\eta$ -cyclodextrin) T. Endo, H. Ueda (Tokyo, Japan), S. Kobayashi (Ibaraki, Japan) and T. Nagai (Tokyo, Japan) . . . . .	369
<i>Author index</i> . . . . .	C9
<i>Subject index</i> . . . . .	C11
<i>Contents</i> . . . . .	C15